

REMARKS

Claim 5 has been amended, and claims 3, 4, 6-10 and 12 have been canceled. Therefore, only claims 1, 2, 5 and 11 remain in the application.

The Examiner objected to claim 5 as being dependent upon a rejected base claim, but noted that claim 5 would be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims. Accordingly, claim 5 has been amended to include the limitations of original claim 1 and is now independent.

Furthermore, the Examiner rejected claims 1, 2 and 11 under 35 U.S.C. §103(a) as being unpatentable over Horwood (U.S. Pat. 5,944,616) in view of Bunn (U.S. Pat. 6,558,278), Horwood (U.S. Pat. 6,729,970), and Hsu (U.S. Pat. 5,380,005).

Claim 1 is directed to a method for optimizing the flexibility of each golf club shaft in a set of golf clubs, which comprises the steps of (i) determining the relative swing speed of the golfer for which the golf club shafts will be optimized; and (ii) selecting the appropriate category of golf club shafts from a plurality of categories, *wherein the range of shaft flexibility exhibited by a category of golf club shafts optimized for golfers with relatively high swing speeds is greater than the range of flexibility exhibited by a category of golf club shafts optimized for golfers with relatively lower swing speeds*. The bolded limitation of claim 1 is further illustrated in Figure 1 of the present application.

Specifically, Figure 1 of the present application shows a plurality of sets of golf club shafts that are optimized for at least five different swing speeds. Because the variance in flexibility among the several shafts that comprise each category is linear, the range of flexibility exhibited by each of the several sets of shafts is represented (for purposes of illustration only) by the approximate slope values ("m") for each line shown therein. Of course, the absolute value of

the slope values ("m") accorded to each category should be compared to ascertain the relative difference in *range of shaft flexibility exhibited by each of the several categories*. Referring to Figure 1 of the present application, for example, the estimated range of flexibility (as represented by the absolute slope values) for category A (for golfers having relatively slow swing speeds) is shown to be less than, for example, the range of flexibility for categories D and E (for golfers having relatively higher swing speeds).

In his rejection of claim 1, the Examiner seems to argue that Horwood (5,944,616) discloses the above limitation. Applicant respectfully disagrees. In fact, Applicant submits that Horwood (5,944,616) teaches away from such limitation. Specifically, Applicant notes that Horwood (5,944,616) discloses that each of the categories of shafts disclosed (and illustrated in Figure 3) therein are "[p]roduced on the basis that in the finally assembled clubs, *within any one flex-matched set the club frequency will increase by 5 cycles per minute for each club in the range from 1 iron to sand wedge*" (emphasis added) (cl. 5, ln. 48). Thus, Horwood (5,944,616) plainly discloses sets of shafts which exhibit the same slope values (and, therefore, ranges in flexibility) across each category of shafts.

The Examiner notes that Figure 3 of Horwood (5,944,616) shows the graphical representation of the A flex category "leveling out at a frequency of 270 cycles per minute at 39.5 inches while the Tour Stiff curve never levels out all the way from 36 inches to 40 inches." The Examiner then seems to deduct that the A flex category exhibits a lesser range of flexibility than the Tour Stiff category. Applicant respectfully submits that the Examiner has misinterpreted Figure 3. Indeed, the approximate *range in flexibility* exhibited by each category of shafts disclosed therein may only be gleaned by approximating the difference in flexibility exhibited by the longest (i.e., 1 iron) and shortest (i.e., sand wedge) shafts shown therein.

Applicant notes, however, that Figure 3 of Horwood (5,944,616) does not disclose such absolute differences (or delta, Δ) values between such irons for each category. In fact, Applicant contends that Figure 3 was not intended to offer such values to the reader. What's clear, however, is the specification of Horwood (5,944,616) plainly states that the shafts disclosed therein are “[p]roduced on the basis that in the finally assembled clubs, *within any one flex-matched set the club frequency will increase by 5 cycles per minute for each club in the range from 1 iron to sand wedge*” (cl. 5, ln. 48). Thus, Horwood (5,944,616) teaches that each category of shafts will exhibit the same range in flexibility (e.g., slope values as illustrated in Figure 1 of the present application), wherein the change in frequency is “5 cycles per minute” from club-to-club “within any one flex-matched set.” In contrast, as shown in Figure 1 of the present application, each category of shafts represented therein exhibit higher absolute slope values from category A (for golfers having relatively slow swing speeds) to, for example, categories D and E (for golfers having relatively higher swing speeds). Thus, Horwood (5,944,616) teaches away from the present invention.

In conclusion, Applicant submits that the cited references do not disclose or suggest all of the limitations of claim 1. Specifically, the references do not disclose or suggest a method for optimizing the flexibility of each golf club shaft in a set of golf clubs *wherein the range of shaft flexibility exhibited by a category of golf club shafts optimized for golfers with relatively high swing speeds is greater than the range of flexibility exhibited by a category of golf club shafts optimized for golfers with relatively lower swing speeds*. Applicant further notes that claims 2 and 11 depend from claim 1 and, therefore, the cited references do not disclose or suggest all of the limitations of these claims.

In view of the preceding remarks, applicant requests reconsideration and allowance of claims 1, 2, 5 and 11.

Respectfully submitted,

Date 1-19-05


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